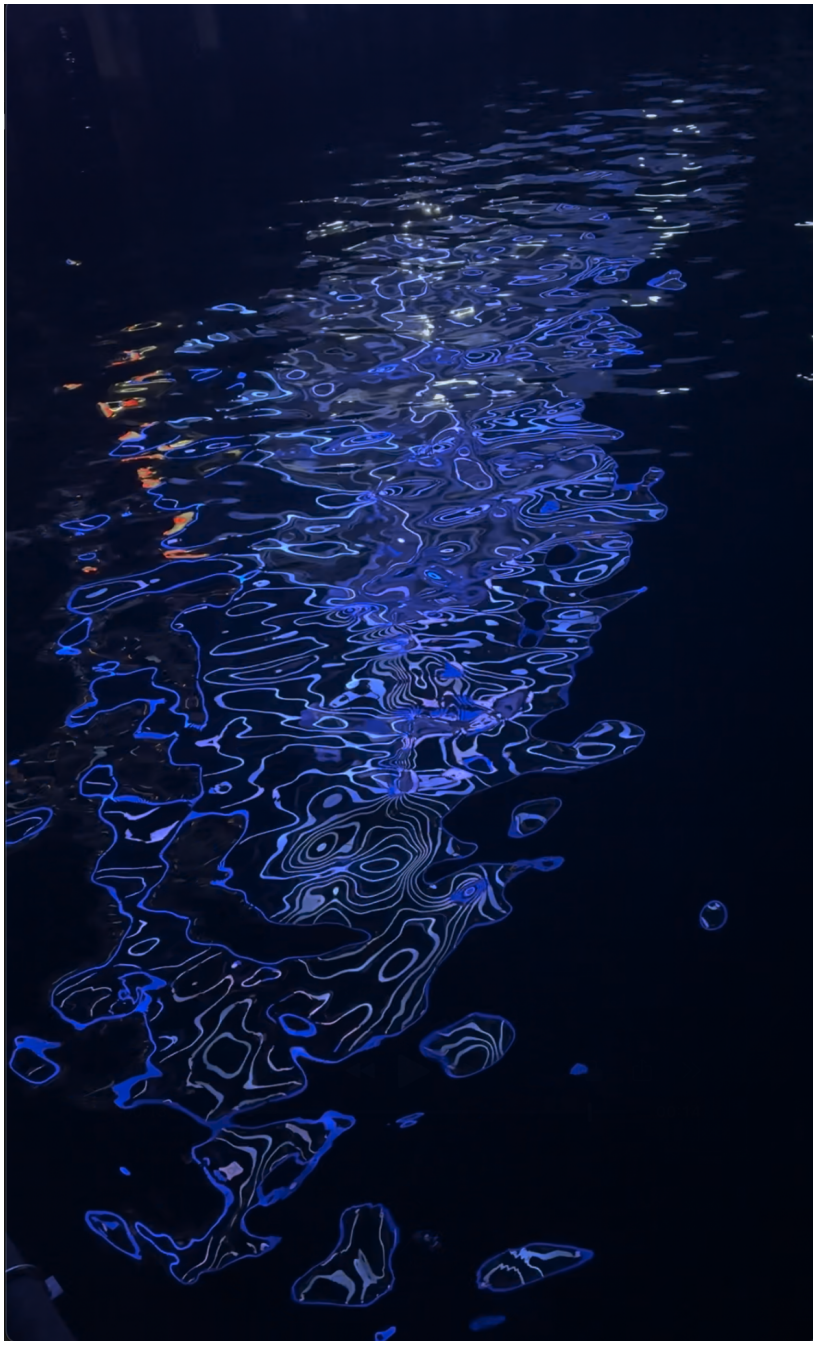
Great Wheel Reflection

09/24/2025 – Get Wet

Konstantinos Stathopulos

ATLS 4151-002



I took this picture after spending the night walking around the Seattle waterfront on September 4th. I made my way to the water at Pier 58 while crew was breaking down what appeared to be a Seahawks pregame. After looking out into the water I noticed the reflection of the Great Wheel was creating a sort of topographic effect on the surface of the water. I took a few different videos of the effect after wandering up and down the section of the pier.

It was a relatively calm night with only some light wind. After watching the water for a while, one of the people breaking down the event informed me that earlier in the night there were thousands of salmon popping up to the surface, as we were in the throws of salmon season. I do not believe this movement had any effect on the surface of the water by the time I took my video. The ferris wheel was lit with blue around the circumference and white along the spokes. Another person I spoke with that evening mentioned that they regularly change the lighting pattern of the wheel.

This video is from a relatively protected part of the dock so the water was relatively still, only exhibiting a little bit of a natural ripple in the surface. I believe the forces in action here are primarily from surface tension and wind, with some small contribution of tidal forces. I also observed that the blue light, which came from the circumference of the wheel, would create complete rings around the breakaway portions of the reflection, suggesting some degree of internal reflection. You would otherwise not expect portions of the circumference to end up at these locations from a simple projection of a circle onto this surface, so the water must be acting to bend the light to some degree.

The video was taken on the night of September 4th at 8:58pm from about the middle of the fence at Pier 58 in Seattle. This is an example of a refractive index visualization, and could be considered a marked boundary as well given the way the lighting marks the surface of the water. The image is only lit by ambient lighting at the waterfront, overwhelmingly from the ferris wheel, but some contribution from the moon, street lights, and a small reflection of a sign from Miner's Landing on the left of the frame.

I took this video with my phone's camera and opted to record vertically as I felt it better matched the shape of the flow. Many of the final photographic decisions were dictated by this format, I however did opt to slightly reduce the exposure to balance the bright white in my image against the darker blue while darkening the surrounding water to better emphasize the reflection of the blue. As a result, most of the settings were dictated by the convention of Vertical web video, my particular video is in 1080x1920. I also feel that the HDR capability of my phone's camera greatly aided the image by capturing a more vibrant blue than would have otherwise been possible. My primary decisions in creating the image were where to capture the image from to maximize the observed effect while minimizing distractions, keeping the entirety of the reflection in frame, and getting as close to the water as I felt was safe. I did not opt to alter the color or playback speed of the video as I wanted to best represent the visual effect as it was present that night.

This image primarily reveals the shape of the water via a topographic like effect from the ferris wheel's spokes, which maps the curvature of the surface in white, and from the circumference in blue that outlines the contours in the water's surface. Initially I wasn't sure if I felt positively or negatively about the orange reflection from the Miner's Landing sign in the left of the frame, I debated wether it aided the image by adding some color contrast or if it was more of a distraction, but after speaking with

some peers during our critique session I’ve leaned more towards considering it a distraction. I think overall my intent was realized, but I’ve been considering taking a single frame with minimal orange as my image instead of a video, my only hesitation is that I find the motion in the video adds a lot to the understanding of the flow.